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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,138	07/13/2004	Calum John Mackinnon	KC-0119	6072
34610	7590	12/13/2005		
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			EXAMINER OKEZIE, ESTHER O	
			ART UNIT 3652	PAPER NUMBER

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,138

Applicant(s)

MACKINNON, CALUM JOHN

Examiner

Esther O. Okezie

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 8, 11-14 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 10, 15, 16 and 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The amendment filed on 9/28/05 and the remarks presented therewith have carefully considered. Applicant's arguments with respect to claims 1-7,9,1015,16,18-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,2,4-7,15,16,20-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Whyte et al.
2. Re claim 1, Whyte et al. discloses a release hook for releasing a load supported on the hook, the hook including a pad-eye (20) for connecting the hook to a crane and an ejector lever (8) for releasing the load from the hook upon actuation of the ejector lever characterized in that the actuation of the ejector lever is provided by a motor (hydraulic motor: hydraulic ram 46 is controlled by electronic control box 43; col. 7, lines 5-40) and a gearing means (piston of hydraulic ram 46) located adjacent the ejector lever which moves the ejector lever upwards toward the pad-eye to eject the load (col. 7, lines 24-27).

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3. Re claim 2, the motor is remotely operated (hand held remote radio transmitter unit 24; col. 5, lines 12-15, 33-34).

4. Re claim 4, the hook comprises a housing having two interconnected generally 'C' shaped sections with the ejector lever being located at the base of the 'C' between the sections (see figs 6 and 7; col. 7, lines 41-46).

5. Re claim 5, sections are bolted together (bolts 64,66).

6. Re claim 6, hook includes catch (fig 6; see section at hook opening).

7. Re claim 7, catch comprises elongate member attached to ejector lever (fig 6).

8. Re claim 15, the pad-eye includes an eye-let aperture (20) such that a link may be made between the pad-eye and the crane block of a crane (col. 6, lines 40-41).

9. Re claim 16, the pad-eye comprises a shaft including connection means to a crane block (col. 6, lines 40-41).

10. Re claim 20, the ejector lever moves in a linear direction towards the pad-eye (fig 3, see upward arrow 'B').

11. Re claim 21 and 25, the ejector lever includes a sloped surface, and wherein when the ejector is moved towards the pad-eye, the sloped surface of the ejector lever bears against the load to release the load from the hook (figs 3, 4,6; col. 5, lines 10-24).

12. Re claim 22 and 26, wherein when the ejector lever and the catch are in a closed position, the catch blocks the load from being released from the hook, and wherein movement of the ejector lever and catch towards an open position moves the catch to a position where it no longer blocks the load from being released from the hook (see figs. 4 and 6; col. 3, lines 29-34).

13. Re claim 23, a hook portion (2) that includes a recess and a lip (figs 3,4,6), an ejector lever (8) which is configured to push a load carried on the hook upward from the recess and over the lip, to thereby release the load from the hook; and a driver (hydraulic motor 46; col. 9, lines 6-11) for moving the ejector lever between open and closed positions (release mechanism 1, control unit 12; col. 2, lines 17-35; col. 6, lines 26-41).

14. Re claim 24 and 27, wherein the driver is configured to move the ejector lever in a linear direction between the closed and open position (col. 7, lines 22-27).

15. Claims 1,2,6,15 are rejected under 35 U.S.C. 102(b) as being anticipated by Berrang.

16. Re claim 1, Berrang discloses a remotely operated magnetic release for releasing a load supported on the hook, the hook including a pad-eye (2) for connecting the hook to a crane and an ejector lever (5) for releasing the load from the hook upon actuation of the ejector lever characterized in that the actuation of the ejector lever is provided by a motor (electromagnetic flux generator which works like a conventional motor; see figs 1 and 2; col. 1, lines 33-55) and a gearing means (geared lever arm 4) located adjacent the ejector lever which moves the ejector lever upwards toward the pad-eye to eject the load (figs 3 and 4).

17. Re claim 2, the motor is remotely operated (col. 3, lines 35-41).

18. Re claim 6, hook includes catch (35).

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19. Re claim 15, the pad-eye includes an eye-let aperture (2) such that a link may be made between the pad-eye and the crane block of a crane.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 1,9,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansort in view of Wood et al.

21. Re claim 1, Hansort discloses a coupling element capable of releasing a load supported on the hook, the hook including a pad-eye (5) for connecting the hook to a crane (col. 2, lines 47-50) and an ejector lever (17) for releasing the load from the hook upon actuation of the ejector lever characterized in that the actuation of the ejector lever is provided by a driving element (20) and a gearing means (gearwheel 23) located adjacent the ejector lever which moves the ejector lever upwards toward the pad-eye to eject the load (figs 2 and 3; see phantom lines for ejected load 10).

Hansort does not provide a motor for actuating the ejector lever, instead the lever is actuated by means of a rotatable driving means (20) that is connected to a cord (44) that must be pulled manually to displace the ejector lever or bolt (17). Wood et al discloses a coupling mechanism for a load including an ejector or turnable ball (23) on

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which a rack is located and the ball is turned by an electrical motor (32) with attached gears (38) moving along the rack (37). Wood teaches adding a motor to turn a gear on a rack located on the ejector in order to dislodge load (14) from the housing (19). It would have been obvious to one of ordinary skill in the art to motorize the ejector lever of Hansort as taught by Wood et al in order to eliminate the need for manual adjustment. Furthermore, it would have been obvious to motorize the ejector lever since it has been held that providing a mechanical or automatic means to replace a manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

22. Re claim 9, Hansort discloses the gearing means comprises a rack (24) and pinion (23).

23. Re claim 10, Hansort discloses the rack is located on the ejector lever (17) and the pinion is operable via the driving means (20). The driving means, however, is not motorized it works via hand operated cable (44). Wood teaches gears (38) operable via the motor (col. 4, lines 41-65) and connected to the motor via chain (39), while the rack lies atop the ejector ball (23). It would have been obvious to one of ordinary skill in the art to motorize the ejector lever of Hansort as taught by Wood et al in order to eliminate the need for manual adjustment. Furthermore, it would have been obvious to motorize the ejector lever since it has been held that providing a mechanical or automatic means to replace a manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

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24. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whyte et al. in view of Kiser et al. Whyte et al discloses "The solenoid valve 44 is connected by an electrical cable 39 to an electronic control box 43 which is connected electrically to a battery 45 contained in a sealed battery containers 47. The battery has a 12 volt dc power supply." Whyte et al does not disclose the battery located in the hook, the battery is located in the control unit housing (26) above the hook. Kiser et al discloses a remote-controlled latch assembly for a hoist hook wherein the battery (54) for operating the motor (48) is located in the hook assembly (figs. 2 and 4; col. 3, lines 52-53). It would have obvious to one of ordinary skill in the art at the time of the invention to provide the battery within the hook assembly in order to allow immediate access to the battery for recharge and/or replacement.

25. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whyte et al. Whyte et al discloses a release mechanism comprising hook (2) and a separate ejector lever (8) coupled to the hook and actuated by an hydraulic motor which converts energy from pressurized fluid into mechanical motion to move the ejector lever up and down to release objects held by the hook. The gearing means or *(1) mechanism that performs a specific function in a complete machine or (2) one of two or more adjustments of a transmission (as of a bicycle or motor vehicle) that determine mechanical advantage, relative speed, and direction of travel*, according to Webster's Online Dictionary, is hydraulic ram or piston (46) moved by pressurized hydraulic fluid (col. 7, lines 5-58). The hydraulic ram is located adjacent the ejector lever and moves

the ejector lever upwards the pad-eye to eject the load (figs 3,4, and 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the release hook of Whyte et al because Whyte et al teaches a hydraulic circuit to operate an hydraulic ram to move the ejector lever, while the use of a rack and pinion actuated by an electric motor is well known in the art and would therefore be an obvious modification.

26. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whyte et al. in view of Androski.

27. Re claim 18, Whyte et al. discloses a simple pad-eye atop the device (fig 4). Whyte et al. does not disclose the pad-eye swivel mounted on the top of the hook. Androski discloses a remote controlled safety hook assembly with pad-eye (7) swivel mounted atop the hook by shaft (5) for horizontal and vertical rotation (col. 3, lines 40-48). It would have obvious to one of ordinary skill in the art at the time of the invention to swivel mount the pad-eye o top of the hook because this arrangement "provides great maneuverability when the safety hook of the present invention is under load" (Androski: col. 3, lines 46-48).

28. Re claim 19, Whyte et al. discloses a simple pad-eye atop the device wherein the base is of greater diameter than the shaft (fig 4). Whyte et al. does not disclose the pad-eye includes the base retained between the two sections of the housing while remaining rotatable with respect to the housing. Androski discloses the base of the pad-eye (7) disposed between two sections of the housing (frame members 4) while remaining

rotatable with respect to the housing (fig. 4; col. 3, lines 40-48). It would have obvious to one of ordinary skill in the art at the time of the invention to provide the pad-eye in a swivel arrangement retained between two sections for rotating with respect to the housing because this arrangement "provides great maneuverability when the safety hook of the present invention is under load" (Androski: col. 3, lines 46-48).

Response to Arguments

Applicant's arguments with respect to claims 1-7,9,10,15,16,18-27 have been considered but are moot in view of the new ground(s) of rejection as described above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther O. Okezie whose telephone number is (571) 272-8108. The examiner can normally be reached on Mon-Thurs 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EOO 12/5/05



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